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Yutaka Matsuoka

062003

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05/17/2010

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EXAMINER

CHEN, VIVIAN

ART UNIT

PAPER NUMBER

1787

NOTIFICATION DATE

DELIVERY MODE

05/17/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

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DETAILED ADVISORY ACTION

1. Claim 6 has been cancelled by Applicant.

Claim Rejections - 35 USC § 103

1. Claims 1-5, 7-8 remain rejected under 35 U.S.C. 103(a) as being unpatentable over:

JP 11-246728 (JP '728),

for the reasons stated in the previous Office Action.

JP '728 discloses a gas barrier coating material comprising ethylene vinyl alcohol (EVOH), an inorganic layered compound (e.g., montmorillonite), and solvent, wherein the volume ratio of inorganic layered compound to EVOH is 10/1 to 1/100. The EVOH is the product of saponifying ethylene vinyl acetate containing 20-60 mol% ethylene with a degree of saponification of at least 95%. The coating material contains at least 10 wt% solvent. The coating material is formed by mixing the inorganic layered compound in the EVOH and solvent, wherein the resultant solution is mixed using a high pressure dispersion apparatus wherein the pressure is at least 100 kgf/cm². The coating is applied to a substrate (e.g., polyethylene, polyethylene terephthalate, cellulosic materials, etc.) at typical coating thicknesses of 30 microns or less. The coated substrates are suitable for forming packaging materials. (entire document, e.g., paragraphs 6, 8, 15-16, 19-20, 23, 27, 55-60, 62, etc.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the amount of solids in the coating material of JP '728 depending on the method of application to substrates. One of ordinary skill in the art would have applied the

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coating composition to cellulosic substrates (e.g., paper) or plastic substrates commonly used in packaging applications to form conventional packages and/or containers (e.g., cups, trays, etc.) by conventional forming and shaping methods.(claim 5-8).

2. Claims 5, 7-8 remain rejected under 35 U.S.C. 103(a) as being unpatentable over:
JP 11-246728 (JP '728),
as applied to claim 1,
and further in view of KOTANI ET AL (US 5,766,751),
for the reasons stated in the previous Office Action.

KOTANI ET AL '751 discloses that it is well known in the art to apply EVOH-based coatings containing inorganic layered compounds to paper and plastic substrates, wherein the coated substrates can be shaped or processed to form packaging, containers, bottles, trays, cups, etc. (line 60, col. 15 to line 44, col. 16; line 10-20, col. 17)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the coating composition of JP '728 to cellulosic substrates (e.g., paper) or plastic substrates commonly used in packaging applications to form conventional packages and/or containers (e.g., cups, trays, etc.) by conventional forming and shaping methods.

Response to Arguments

3. Applicant's arguments filed 4/22/2010 and the Matsuoka Declaration filed 4/22/2010 have been fully considered but they are not persuasive.

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(A) Applicant argues that the recited content ratio of inorganic layered compound to EVOH is critical. However, while the showing in the specification provides some evidence of improved performance with respect to the recited content ratio (layered compound/EVOH), the showing is not commensurate in scope with the present claims (e.g., with respect to total amount of (A) and (B); etc.). Specifically, the Examples in the specification and the Matsuoka Declaration utilize a very narrow total amount of (A) and (B) range of 3-5 wt%, while the claims are directed to ranges of 1-30 wt%. Applicant has not provided evidence that similar unexpected results or criticality would be present at total amount of (A) and (B) ranges greater than 5 wt% (up to 30 wt%) or less than 3 wt%, since the Comparative Examples 3-4 in the specification indicate that the total amount of (A) and (B) materially affects the performance of the coating.

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Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho, can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

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May 10, 2010

/Vivian Chen/

Primary Examiner, Art Unit 1787